

REMARKS

Applicant thanks the Examiner for his courtesy during the interviews conducted on May 16 and May 17, 2007, during which the Office Action and cited references were discussed. During the May 16 interview, Dr. Bjorklund explained the basis for the analysis described below. Agreement was not reached during the interview, although the Examiner agreed to consider the draft claim submitted on May 17, 2007. The following comments summarize the substance of the presentation and discussion during the interviews.

Applicant has reviewed the Office Action carefully, and has fully considered the newly applied reference, Slatkine WO 03/049633 (hereinafter either “Slatkine” or the “‘633”). It is noted that the ‘633 was cited in the Background portion of applicant’s patent application.

The Examiner asserts, at page 2 of the Office Action in “Response to Arguments” that:

“Slatkine clearly teaches the use of a diffuser to modify the divergent half angle of a laser to ‘provide a beam that is not injurious to an operator, observer ...’. The eye safety is based on ANSI Z 136.1 standards...”

Further, at page 4 of the Office Action, the Examiner asserts that:

“Slatkine teaches that when the divergent half angle of a beam is greater than 60 degrees, no protective eyeglasses are

required (page 7, lines 7-18). The radiance is rendered below levels that are considered eye safe based on established standards (page 9, line 22 to page 10, line 2). The diverging of the beam can be accomplished by scattering, reflecting or diffusing the beam. Slatkine teaches the diffusing element may be sandblasting or etching a surface or by application of a thin sheet of a diffusing polymer to a glass plate (page 31), thus teaching the use of refraction and reflection to diffuse a beam. The location of the diffuser inside or outside the housing is considered an obvious design choice. It would have been obvious to one skilled in the art to use the diffusing element as taught by Slatkine in the invention of Yarborough [sic: Yaroslavsky] to achieve an eye safe output as suggested by Slatkine."

Applicant acknowledges that Slatkine uses many of the words that the Examiner quotes. However, as established by the attached Declarations of Joseph W. Goodman and Gary C. Bjorklund, both of whom are experts in the field of laser optics, the '633 reflects a fundamental misunderstanding of what is required to make a laser eye safe. In fact, as pointed out by both Professor Goodman and Dr. Bjorklund, simply diverging a laser beam to a half angle of 60 degrees does not make that beam eye safe. Likewise, Slatkine's combination of a diffuser with a low half angle and a diverging lens to achieve a half angle of 60 degrees does not make the resulting beam eye safe. Instead, these devices are dangerous and Slatkine's examples which purport to teach an eye safe device

which has sufficient fluence to remove hair in fact are devices which are dangerous to everyone in the room – not just the operator, or the patient, but potentially every bystander. A relevant point is that, if one of ordinary skill in the art were to build a device compliant with the examples shown in the '633 by using the low-angle diffuser and diverging lens as taught there, the resulting device would potentially blind both eyes of an observer or operator or patient, whereas a single laser beam would only damage one eye. Thus the device taught by Slatkine is, in fact, more dangerous than a device without Slatkine's diffuser.

Attachments 1 and 2 to Dr. Bjorklund's Declaration establish that, for every one of Slatkine's examples of a purportedly eye-safe design for removing hair, a correct analysis of the resulting beam shows the design NOT to be eye safe. It should be noted that Attachments 1 and 2 show two different approaches to the modeling of the examples in the '633, and both approaches yield the same bottom line: none of these examples in the '633 is eye safe, contrary to the assertions contained in the '633.

It is also important to note that both Prof. Goodman and Dr. Bjorklund conclude that the '633 provides no guidance which would enable one of ordinary skill in the art to balance the conflicting objectives of achieving an optical output which is eye safe, while at the same time being of sufficient fluence to effect a dermatological procedure such as the removal of hair. Both also conclude that nothing in the '633 makes it obvious to one of ordinary skill in the art how to construct an apparatus that uses a light source with sufficient fluence to effect

hair removal on a human, and also has an optical diffuser for diffusing the light so that the light emitted from the apparatus is eye safe.

Also accompanying this Amendment are the Declarations of Ronald G. Wheeland, MD, and Suzanne Kilmer, MD. Both declarations establish that, when they first learned of the device that embodies the present invention, they were “astounded” and “amazed” to learn that such a device was possible, and that their peers have had a similar response.

With respect to claims 164 and 169, the Examiner has asserted that Yarborough [sic: Yaroslavsky] shows a reflecting area that causes uniform irradiation. It does not, as noted by Dr. Bjorklund at paragraph 18. Likewise, the nothing is inherent in the light guide of Slatkine which provides substantially uniform illumination of the diffuser; see Dr. Bjorklund’s declaration at paragraph 16 and Prof. Goodman’s declaration at paragraph 12.

It is also appropriate to point out that applicant’s invention is self-contained, even though applicant’s claims require more fluence than any reference to a self-contained unit of which applicant is aware, nor is there any teaching or suggestion in Slatkine or any other reference of which applicant is aware of how to achieve such high fluences in a self-contained, eye safe device as required by the claims. Yaroslavsky likewise teaches nothing of these features.

It is believed that each of these newly-presented claims properly encompasses the legitimate scope of the invention and defines over the art, and

is also within the elected species and subspecies. As such, it is believed that each of the pending claims is in condition for allowance, and early notification to that effect is earnestly solicited. In the event that any issue remains which the Examiner believes could be facilitated by a telephone call, he is invited to telephone the undersigned at 650-326-4350, or on his cell phone at 650-269-5025. The cell phone is preferred, to minimize phone tag.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "James E. Eakin".

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